



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/811,969	03/19/2001	John G. Waclawsky	CIS00-3487	9254

7590 10/18/2004
Barry W. Chapin, Esq.
CHAPIN & HUANG, L.L.C.
Westborough Office Park
1700 West Park Drive
Westborough, MA 01581

EXAMINER

LEE, ANDREW CHUNG CHEUNG

ART UNIT	PAPER NUMBER
----------	--------------

2664

DATE MAILED: 10/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/811,969	Applicant(s) WACLAWSKY ET AL.	
	Examiner Andrew C Lee	Art Unit 2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 28 is/are rejected.
- 7) ☒ Claim(s) 26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>Oct 15, 2002</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: page 20, line 14, "communications channel 171" not indicated in the Fig. 1. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to because in Fig. 4, the lead lines for T0, T1, T2, T3, T4 and T5 are missing. T0, T1, T2, T3, T4 and T5 are merely placed on the timeline and do not indicate clearly to which events they relate. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as

Art Unit: 2664

“amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities:
- Page 15, line 12, the Office would request the Applicant to provide the Clarification on “Is also to be”.
 - Page 20, line 14, the Office would request the Applicant to provide the clarification on the reference element “communications channel 171”.
 - The Office would request the Applicant to provide the clarification on the subject matters, “SYN segment” and “FIN segment”. What does the term “segment” mean in the disclosure? Does the Applicant refer to the “SYN bit” and the “FIN bit” in the TCP header Format of TCP protocol IETF RFC 793?

Art Unit: 2664

- Page 43, line 15, the bulleted item i) should be corrected as ii).
- Page 44, line 22, the bulleted item ii) should be corrected as iii).
- Page 40, lines 4 – 5, the Office would request the Applicant to provide more clarification on the step 303 – “the bandwidth manager process 142 prompts the user for a new bandwidth setting and receives the bandwidth setting from the user.” The disclosure does not indicate clearly the step 303 is performed dynamically or manually by user input.

Appropriate correction is required.

Claim Objections

4. Claim 26 is objected to because of the following informalities: Claim 26 is disclosed as apparatus and is dependent on Claim 1 while Claim 1 is disclosed as method and step. Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1 – 12, 14 – 25, 27 – 28 are rejected under 35 U.S.C. 102(e) as being anticipated over Ravi et al. (U.S. Patent No. 6292834 B1).

Regarding Claims 1 and 27, Ravi et al. discloses the limitation of a communications device, a method for dynamically adjusting bandwidth of a communications channel (column 3, lines 9 – 12), the method comprising the steps of: detecting a first event indicating a first anticipated change in a bandwidth requirement of the communications channel (Fig. 4, column 6, lines 40 – 43); calculating a first new value for a bandwidth setting of the communications channel in response to detecting the first event (Fig. 4, column 7, line 18); and adjusting a bandwidth characteristic of the communications channel according to the first new value of the bandwidth setting such that communications channel can accommodate the first anticipated change in the bandwidth requirement (Fig. 6A and Fig. 6B, step 512, column 7, lines 37 – 39).

Regarding Claims 2 and 15, Ravi et al. discloses the limitation of performing communications on the communications channel using the bandwidth setting having the first new value (Fig. 6A and Fig. 6B, step 512, column 7, lines 37 – 39); detecting an end of the first event indicating that the first anticipated change in a bandwidth requirement of a communications channel is complete (Fig. 6A and Fig. 6B, step 512, column 7, lines 37 – 39); and adjusting the bandwidth characteristic of the communications channel to an original value of

Art Unit: 2664

the bandwidth setting that existed prior to the detection of the first event Fig. 6A and Fig. 6B, step 512, column 7, lines 37 – 46) .

Regarding Claims 3 and 16, Ravi et al. discloses the limitation of detecting a second event indicating a second anticipated change in the bandwidth requirement of a communications channel (Fig. 6A and Fig. 6B, step 512, column 7, lines 37 – 39); calculating a second new value for a bandwidth setting of the communications channel in response to detecting the second event (Fig. 6A and Fig. 6B, step 512, column 7, lines 37 – 39); and further adjusting the bandwidth characteristic of the communications channel according to the second new value of the bandwidth setting such that communications channel accommodates the second anticipated change in the bandwidth requirement (Fig. 6A and Fig. 6B, step 512, column 7, lines 37 – 39).

Regarding Claims 4 and 17, Ravi et al. discloses the limitation of calculating a first new value for a bandwidth setting of the communications channel in response to detecting the first event (Fig. 6A and Fig. 6B, step 512, column 7, lines 37 – 39) comprising the steps of: determining if the bandwidth event contains a bandwidth determination factor (column 7, lines 19 – 25), and if the bandwidth event contains a bandwidth determination factor: i) extracting the bandwidth determination factor from the bandwidth event (column 7, lines 26 – 29); and ii) calculating the new value for the bandwidth setting based on the bandwidth determination factor (column 7, lines 26 – 29); and if the bandwidth

Art Unit: 2664

event contains a bandwidth determination factor (column 7, lines 19 – 25), adjusting the bandwidth setting to at least one of a next higher level and a next lower level based on the bandwidth event (Fig. 6A and Fig 6B, column 7, lines 37 - 46).

Regarding Claims 5 and 18, Ravi et al. discloses the limitation of the first bandwidth event indicates a first increased anticipated change in the bandwidth requirement of the communications channel (Fig. 5A, column 7, lines 26 – 29) and the second bandwidth event indicates a second increased anticipated change in the bandwidth requirements of the communications channel (Fig. 5A, column 7, lines 26 – 29); and wherein the first new value of the bandwidth setting is greater than a former value of the bandwidth setting and the second new value of the bandwidth setting is greater than the first new value of the bandwidth setting (column 10, lines 21 – 27), such that the bandwidth characteristic of the communications channel is dynamically adjusted to raise the bandwidth of the communications channel in response to the first and second bandwidth events (column 10, lines 21 – 27).

Regarding Claims 6 and 19 Ravi et al. discloses the limitation of at least one of the first bandwidth event and the second bandwidth event indicate a browser event for at least one of: i) a beginning of a communications session; ii) a beginning of content processing; and iii) a user bandwidth request for additional bandwidth on the communications channel (column 9, lines 64 – 66).

Regarding Claims 7 and 20, Ravi et al. discloses the limitation of the first bandwidth event indicates an increased anticipated change in the bandwidth requirement of the communications channel and the second bandwidth event indicates a decreased anticipated change in the bandwidth requirements of the communications channel (column 9, lines 64 – 67; column 8, lines 1 – 5); and wherein the first new value of the bandwidth setting is greater than a former value of the bandwidth setting (column 10, lines 10 – 11) and the second new value of the bandwidth setting is less than the first new value of the bandwidth setting (column 10, lines 7 – 9), such that: i) the bandwidth characteristic of the communications channel is dynamically adjusted to raise the bandwidth of the communications channel in response to the first bandwidth event (column 10, lines 11 – 12); and i) the bandwidth characteristic of the communications channel is dynamically adjusted to lower the bandwidth of the communications channel in response to the second bandwidth event (column 10, lines 10 – 12).

Regarding Claims 8 and 21 Ravi et al. discloses the limitation of the second bandwidth event indicating an end of the first bandwidth event (Fig. 6A, reference element 612, column 7, lines 37 – 38).

Regarding Claims 9 and 22, Ravi et al. discloses the limitation of the first bandwidth event indicates a browser event for at least one of: i) a beginning of a communications session (column 7, lines 43 – 46); ii) a beginning of content

Art Unit: 2664

processing; and wherein the second bandwidth event indicates a browser event for at least one of: i) an end of a communications session (column 7, lines 43 – 46); ii) an end of content processing; and iii) a timeout associated with an earlier bandwidth event.

Regarding Claims 10 and 23, Ravi et al. discloses the limitation of the communications device is a browser enabled device (column 6, lines 18 – 19) and wherein the first event indicates a browser event requiring a browser in the communications device to access content from a remote computer system (column 6, lines 31 – 33); and wherein the step of calculating calculates the first new value of the bandwidth setting of the communications channel to accommodate additional bandwidth used to receive the content from the remote computer system (column 6, lines 40 – 43).

Regarding Claims 11 and 24, Ravi et al. discloses the limitation of detecting the first event includes parsing content accessed by the browser to detect a content reference within the content (column 2, lines 13 - 19).

Regarding Claims 12 and 25, Ravi et al. discloses the limitation of detecting the first event detects a communications session message generated by the browser (column 3, lines 5 – 8; column 6, lines 18 – 20).

Art Unit: 2664

Regarding Claims 14 and 28, Ravi et al. discloses the limitation of a communications device comprising: a communications interface (column 5, lines 18 – 23); a memory system (column 4, lines 33 – 35); a processor (column 4, line 33); and an interconnection mechanism coupling the communications interface, the memory system, and the processor (Fig. 1, column 4, line 49 – 51; lines 56 – 57) ; wherein the memory system is configured with a bandwidth manager application (column 4, lines 44 – 55; column 5, 58 – 59), that when performed on the processor, provides a bandwidth manager process that dynamically adjusts bandwidth of a communications channel operating on the communications interface (column 6, lines 40 – 43) by performing the operations of: detecting a first event indicating a first anticipated change in a bandwidth requirement of the communications channel (column 7, lines 37 – 39); calculating a first new value for a bandwidth setting of the communications channel in response to detecting the first event (Fig. 4, column 7, line 18); and adjusting a bandwidth characteristic of the communications channel according to the first new value of the bandwidth setting such that communications channel can accommodate the first anticipated change in the bandwidth requirement (Fig. 6A and Fig. 6B, step 512, column 7, lines 37 – 39).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to

Art Unit: 2664

be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 13 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ravi et al. (U.S. Patent No. 6292834 B1) in view of Yu et al. (U.S. Patent No. 6684087 B1).

Regarding Claims 13 and 26, Ravi et al. discloses the limitation of a communications device, a method for dynamically adjusting bandwidth of a communications channel (column 3, lines 9 – 12), the method comprising the steps of: detecting a first event indicating a first anticipated change in a bandwidth requirement of the communications channel (Fig. 4, column 6, lines 40 – 43); calculating a first new value for a bandwidth setting of the communications channel in response to detecting the first event (Fig. 4, column 7, line 18); and adjusting a bandwidth characteristic of the communications channel according to the first new value of the bandwidth setting such that communications channel can accommodate the first anticipated change in the bandwidth requirement (Fig. 6A and Fig. 6B, step 512, column 7, lines 37 – 39). But Ravi et al. fails to disclose the communications device is a wireless device and the communications channel is a wireless communications channel and wherein the bandwidth characteristic of the communications channel is at least one of: i) a timeslot allocation for a time division multiple access protocol operating on the communications channel; ii) at least one frequency for a code division multiple

Art Unit: 2664

access protocol operating on the communications channel; and ii) at least one frequency code for a code division multiple access protocol operating on the communications channel. Yu et al. discloses the limitation of the communications device is a wireless device (Fig. 1 and Fig. 2, column 3, lines 53 – 60) and the communications channel is a wireless communications channel (Fig. 1, column 3, line 53, reference element 102) and wherein the bandwidth characteristic of the communications channel is at least one of: i) a timeslot allocation for a time division multiple access protocol operating on the communications channel (Fig. 3A, column 5, line 48; line 36 – 57); ii) at least one frequency for a code division multiple access protocol operating on the communications channel (Fig. 3A, column 5, line 48; line 36 – 57); and ii) at least one frequency code for a code division multiple access protocol operating on the communications channel (Fig. 3A, column 5, line 48; line 36 – 57). It would have been obvious to modify Ravi et al. to include a communications device is a wireless device and the communications channel is a wireless communications channel and wherein the bandwidth characteristic of the communications channel is at least one of: i) a timeslot allocation for a time division multiple access protocol operating on the communications channel; ii) at least one frequency for a code division multiple access protocol operating on the communications channel; and ii) at least one frequency code for a code division multiple access protocol operating on the communications channel such as that taught by Yu et al. in order to have applications to the navigation of Internet web pages by two-way interactive

Art Unit: 2664

communication mobile devices. Note that Claim 26 is assumed to be a dependent claim on Claim 14.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C Lee whose telephone number is (571) 272-3131. The examiner can normally be reached on Monday through Friday from 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (571) 272-3134. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ACL

October 05, 2004


Anil Patel
Primary Examiner